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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/797,726

03/10/2004

Gerald G. Pechanek

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EXAMINER

SHIN, CHRISTOPHER B

ART UNIT

PAPER NUMBER

2181

DATE MAILED: 09/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/797,726

Applicant(s)

PECHANЕК ET AL.

Examiner

Christopher B. Shin

Art Unit

2181

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-40 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 23-40 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

1. The amendments received January 23, 2006 and December 8, 2004 have been entered and carefully considered. Claims 23-40 are pending in the application.

Claim Rejections - 35 USC § 112

2. Claims 33-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- i. The above method claims 33, 35-39 are improperly dependent from apparatus claim 31; therefore, metes and bounds cannot be determined at this time.
- ii. Claim 34, the "pattern" lacks proper and clear antecedent basis

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 23-32, 34 & 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leach et al. (5,179,689).

- a. In figure 1 and the respective descriptive sections teach the limitations of the claims as follows:

Claim 23-31 Leach et al. (5,179,689)

- A system core comprising
 - Figure 1 system
- A processor
 - (12)
- A DMA controller
 - (22)
- An instruction memory containing processor instructions and DMA instructions
 - Any one of (16, 18, 20 or even external memory)
- A plurality of memories,
 - Any one of (16, 18, 20 or even external memory)
- the DMA controller coupled to the instruction memory and the plurality of memories,
 - (22) connected to (16, 18, 20 or external memory)
- the DMA controller fetching and executing DMA instructions from the instruction memory to populate the plurality of memories with data from an external device, the processor operating on the data found in the populated memories
 - functions of (22) connected to (16, 18, 20 or even external memory) for transferring data there between
- Wherein the executed DMA instructions specify a pattern to populate the plurality of memories
 - Feature of programming (22) for DMA
- Wherein the patter is a block, or circular, or stride pattern
 - Feature of DMA (22) for block transfer
- Wherein the data from the external device includes processor instructions
 - Any one of (16, 18, 20 or even external memory) are being used as program or data memory
- A DMA bus connecting the DMA controller to the instruction memory and the plurality of memories
 - (38)
- A bus coupled to the external device and the system core
 - (28) and/or connections to (24/26)
- Wherein the external device is an external host processor
 - Obvious addition
- Wherein the external device is an external SDRAM
 - Obvious addition
- Wherein the DMA controller fetches and executes DMA instructions from the instruction memory to populate the external device with data from the plurality of memories
 - DMA control (22) transfers data between (16, 18, 20 or even external memory) that are being used as program or data memory

b. As for claims 23-28 and 31, the difference between the claimed invention and the teachings of the Leach reference is that the Leach reference does not expressly an instruction memory containing processor and DMA instructions; the Leach reference openly teaches many possible choices of memories (16, 18, 20 or external memories) can store instructions. Since the Leach reference teaches the memories (16, 18, 20 or external memories) that are functionally equivalent with the claimed memory, it would have been obvious at the time the invention was made to one having ordinary skill in the art to come up with the claimed invention from the teachings of the Leach reference, for the reasons stated above.

c. As for claims 29-30, further adds limitations regarding external device to be a SDRAM or host processor with claimed functions of data sources. The examiner takes official notice on such well known limitations for providing data to a system core having DMA capabilities. One skill in the art can easily recognizes and utilizes host processor or SDRAM as data sources.

d. As for method claims 32, 34 & 40, due to the similarity between the claims, the teachings of the apparatus claims 23-31 are similarly applied.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher B. Shin whose telephone number is 571-272-4159. The examiner can normally be reached on 6:30-5:00 M,Tu,Th,F.

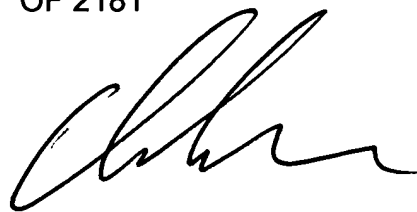
Art Unit: 2181

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fritz Fleming can be reached on 571-272-4145. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CHRISTOPHER SHIN
PRIMARY EXAMINER
OF 2181

September 12, 2006
cbs

A handwritten signature in black ink, appearing to read 'Chris Shin', written in a cursive style.